

## **Abstract:**

**Title of the thesis:** Involvement of the arms during ski-mountaineering according to different slope inclinations.

**Objectives:** The objective of the bachelor thesis is to find out the difference of strain makes to poles during ski-mountaineering depending on slope and constant speed.

**Methods:** The study is designed like a pilot study. 8 persons were chosen for this measurement. It was an experiment. The research was realized in a laboratory.

**Results:** Results of study confirm our scientific question. Pressure in the poles increased when the angle of slope is increasing during ski-mountaineering. Angle  $10^\circ$  of slope showed at an average 42,3% more pressure makes to poles than angle  $0^\circ$ . Angle  $20^\circ$  of slope showed at an average 12,8% more pressure makes to poles than angle  $10^\circ$ .

**Key words:** Ski-mountaineering, strain-gauge transducer, pressure